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# Avalanche Notes

U.S. Forest Service  
Westwide Avalanche Network

NOVEMBER 1991

Note: The weather and avalanche data sheet for November has been delayed. It will be included with your December issue.

In late October the jet stream buckled and ushered a flurry of snowstorms into the West, bringing a pretty fall season to an abrupt end. Snowfalls of 2-4 feet hit the Cascades, Wasatch, and Rockies from Montana to New Mexico. Arctic air followed the snow and brought record low temperatures to some sites in the Rockies on the last day of October through November 3. For example, Alamosa, CO hit -26F on the morning of the 3rd, and Winter Park, CO, -18F.

November's storm track rode over the Pacific high to bring above-normal snows to the Cascades, Wasatch, and the Rockies. The Cascades were mostly dry in the first half of November, but enough snow and rain fell after the 17th to make up the deficit: Mt. Rainier, WA received 110% of normal snows. Stevens Pass, WA got generous snows, but it was their water equivalents that were most impressive: 5.5" on the 18th-19th, 5.6" on the 21st, and 8.7" on the 25th-29th. Along the West Coast, the Sierra was south of the storm track (what else is new?), and Alpine Meadows, CA got only 64% of normal.

Snowbird, UT started November with 25" of snow cover, got 30" from a storm on the 18th-19th, and finished the month with 180% of normal. In Colorado, Berthoud Pass recorded snow on 22 of 30 days and ended up with 215% of normal. Gothic (18" on the 18th) got 125%; Wolf Creek (29" on the 15th-16th), 130%; Winter Park, 165%; and Monarch, 170%.

One result of the heavy snows was a near-absence of depth hoar throughout the Rockies -- most unusual for November. Several notable incidents occurred. On the 2nd and 3rd on Odyssey Mountain, Thompson Pass, AK (the site of the World Extreme Ski Championship in April, 1991), two skiers were caught in avalanches: on the 2nd, the victim suffered a broken wrist; on the 3rd, the victim was totally buried except for one arm and was dug out, uninjured, by another skier after 15 minutes. Both were teenagers and aspiring extreme skiers. In Utah, a backcountry skier suffered a badly broken leg when he triggered and rode an avalanche.

Through November, a total of 13 avalanche incidents have been reported, resulting in 12 people caught, 4 partly buried, 1 buried, and 2 injured.

#### APRIL 1991 REVISITED

Two serious avalanche accidents occurred last April but were not included in the April 1991 issue of Avalanche Notes.

On April 20, a 45-year-old climber was attempting a solo climb of 14,255-foot Longs Peak in Rocky Mountain National Park, CO. Apparently he triggered an avalanche on a hanging snowfield and was swept off a 1,000-foot cliff (The Diamond). His body was found on June 18 when the avalanche debris melted out. For the winter of 90-91, this was the sixth avalanche death in Colorado and the eighth in the U.S.

On April 25, four Dutch climbers triggered an avalanche on the southeast ridge of Mt. Foraker, AK. The avalanche fractured 5 feet deep and swept the climbers on a 1,600-foot fall. All survived, but three suffered injuries, the most serious being a broken shoulder and punctured lung. The fourth man was totally buried, though the top of his pack was visible. He was not breathing when dug out but started breathing after being uncovered. This was the same slope that avalanched and killed four climbers in 1984.

Finally, sometime in April a large avalanche or avalanches swept over the Going-to-the-Sun Highway in Glacier National Park, MT and caused damage of approximately \$150,000.

You may want to update the statistics in Table 1 of your April issue. The top two lines should be corrected to read:

		PEOPLE				VEHICLES		AVALANCHE DAMAGED			
WINTER	AVALANCHES	C	B	I	K	BUR	DAM	BLDGS	LIFTS	MISC	DAMAGE
1990-91	7,046	134	54	12	8	8	2	2	0	1	\$160,000
1989-90	6,122	141	58	16	8	14	8	3	0	3	150,000

#### ISSW'92

If you have not received an announcement and registration form for the International Snow Science Workshop to be held in Breckenridge, CO in October, 1992, write to:

ISSW'92, P.O. Box 733, Fort Collins, CO 80522, USA.